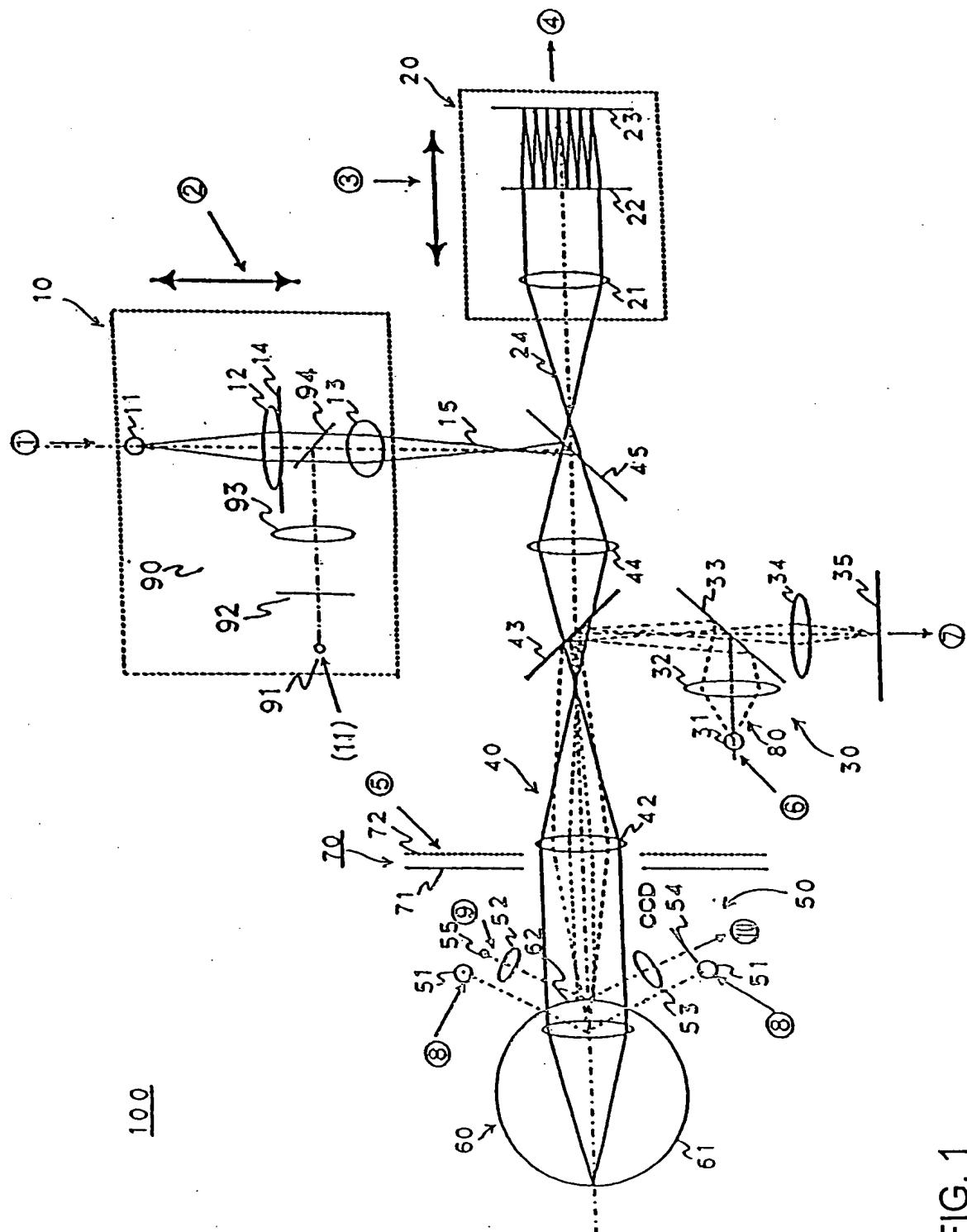


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1 / 3 2



1
FIG.

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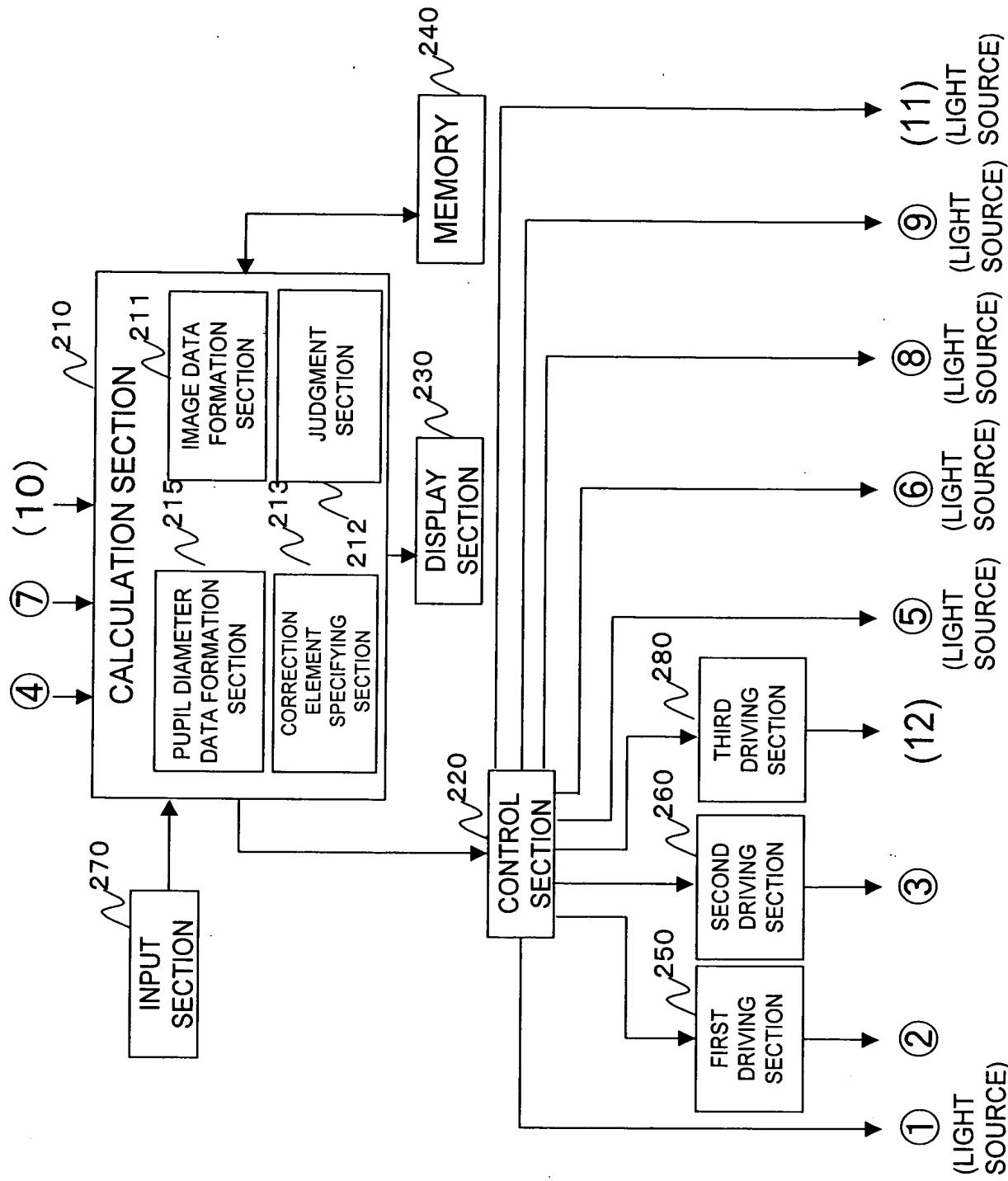
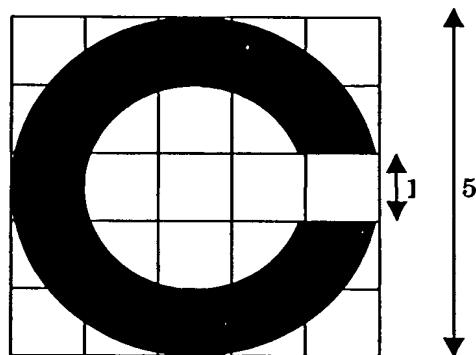


FIG.2

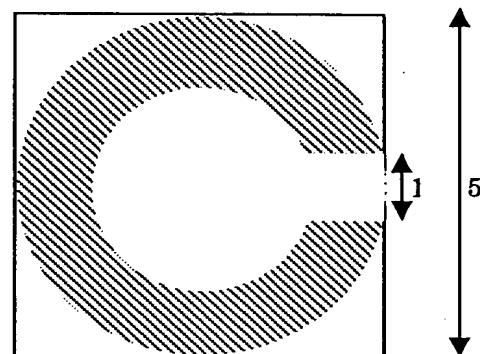
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LANDOLT'S RING



HIGH CONTRAST



LOW CONTRAST

FIG.3

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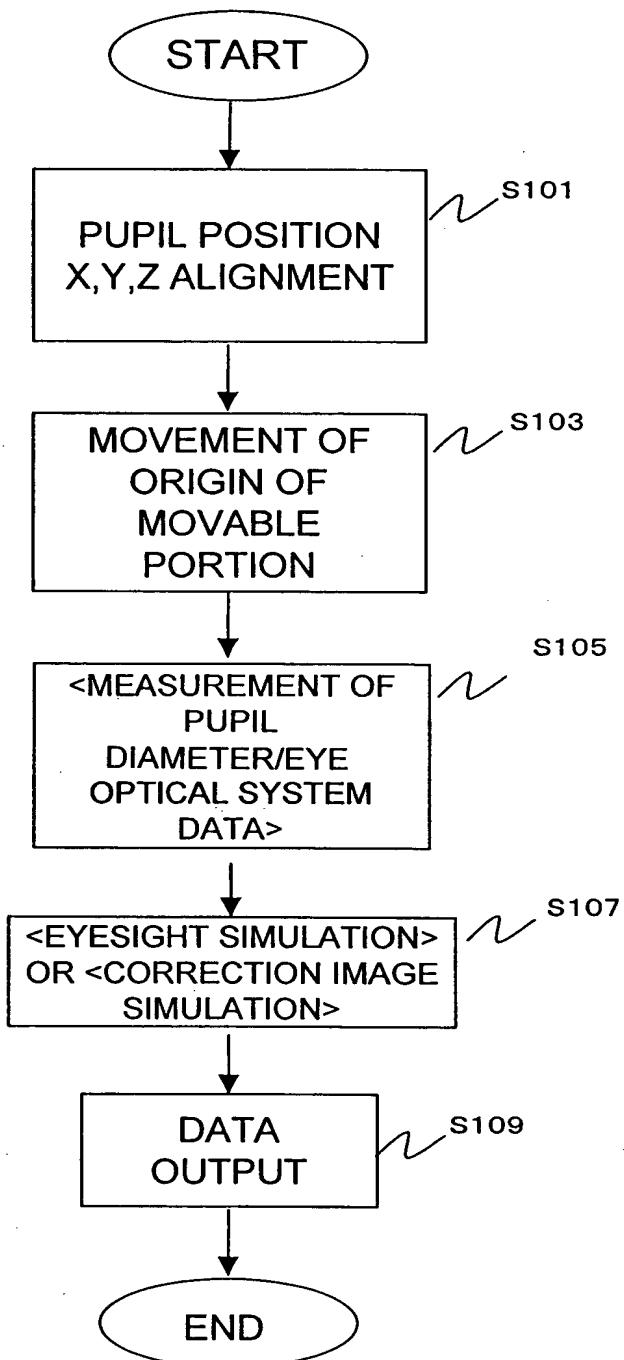


FIG. 4

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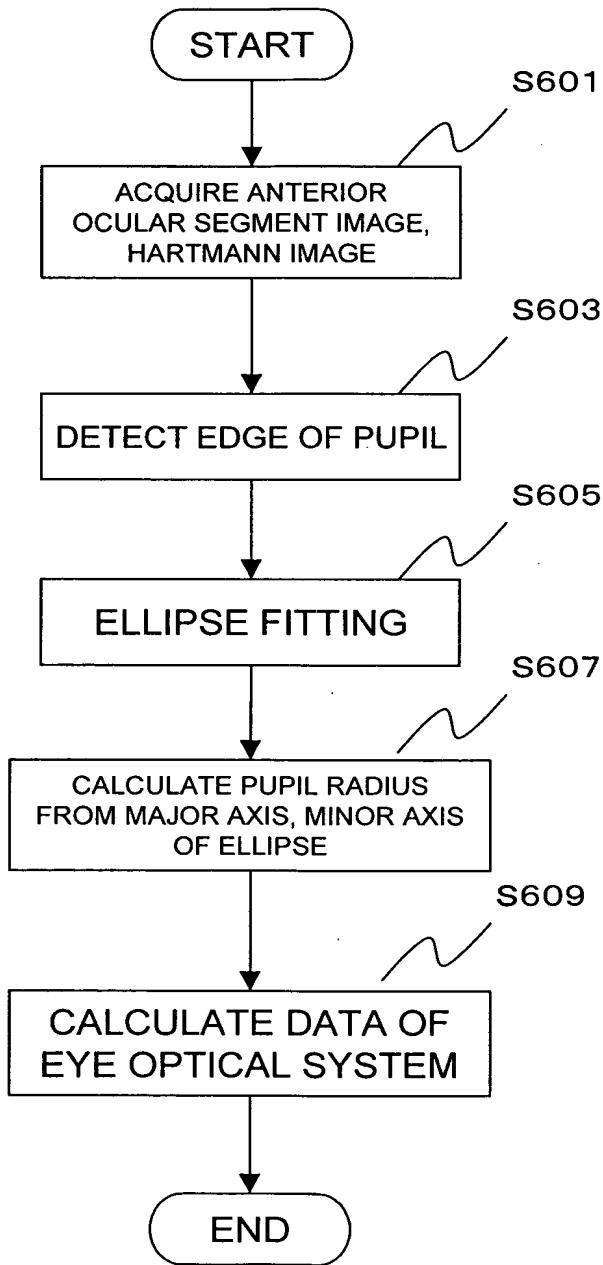


FIG.5

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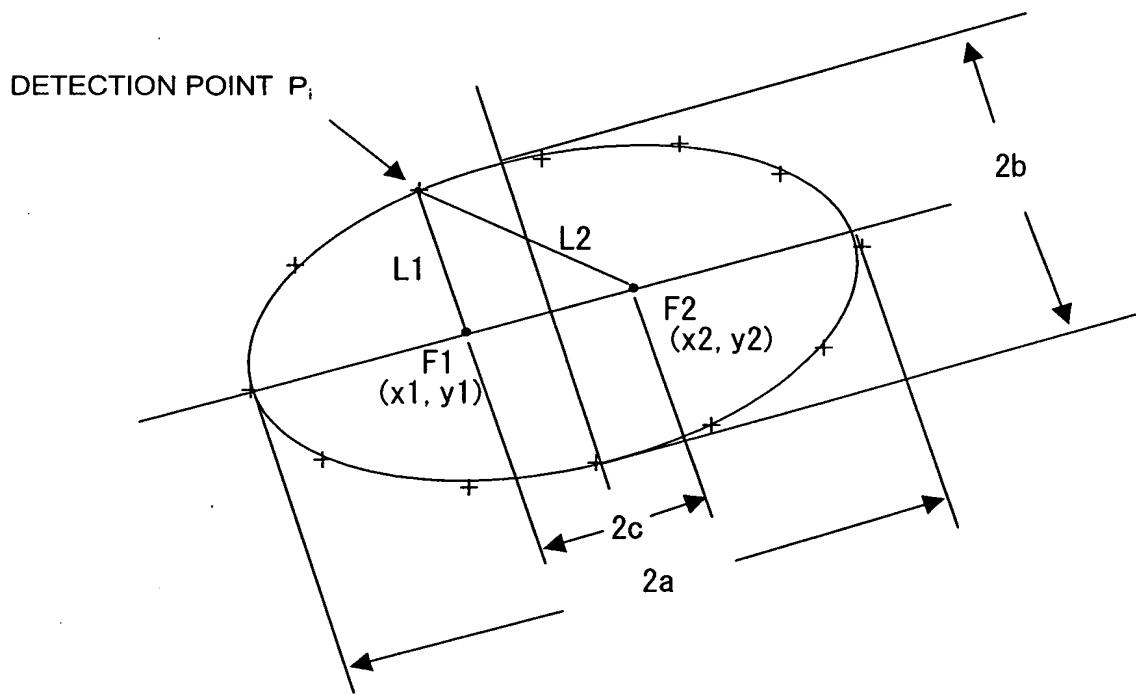


FIG.6

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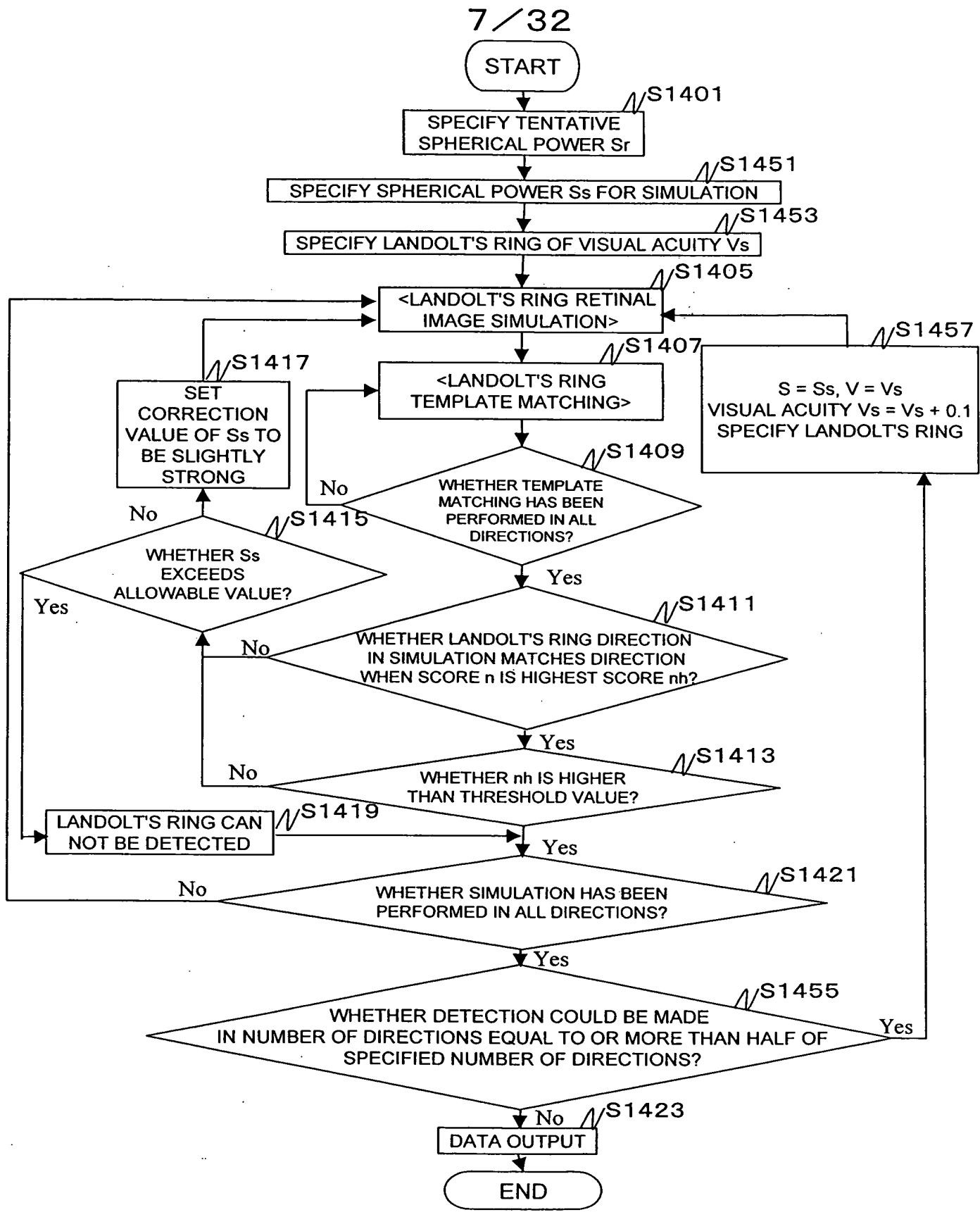


FIG.7

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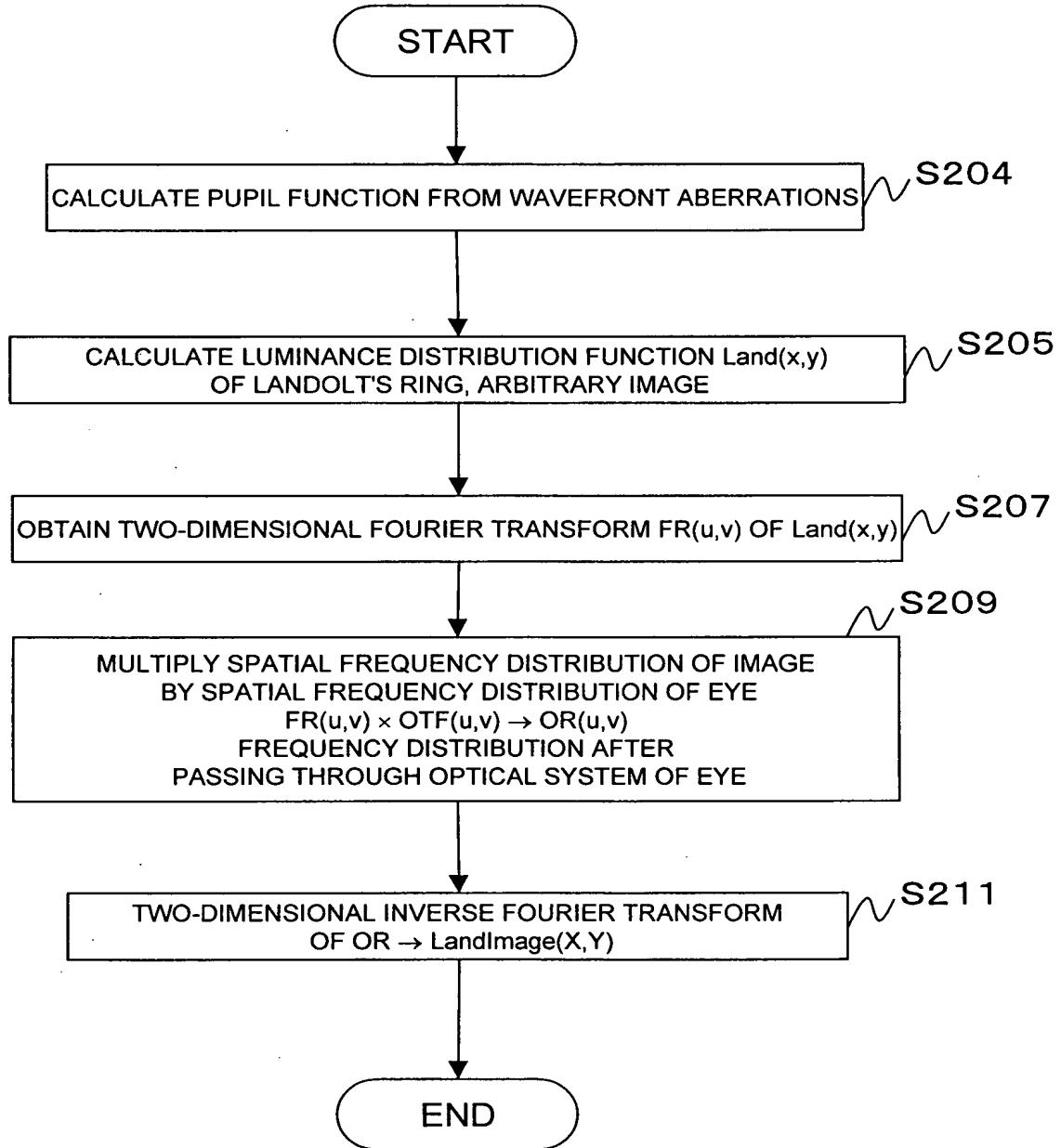
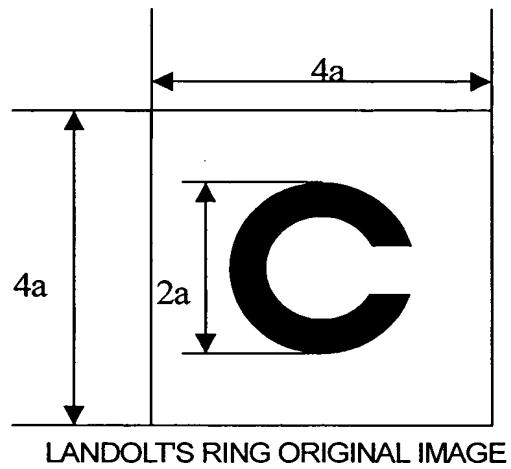
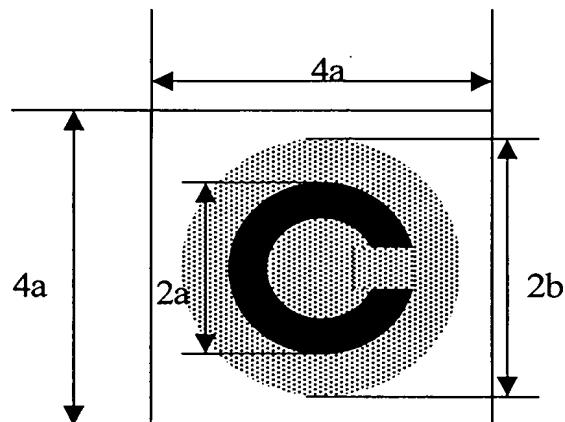


FIG.8

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LANDOLT'S RING ORIGINAL IMAGE



TEMPLATE IMAGE

FIG.9

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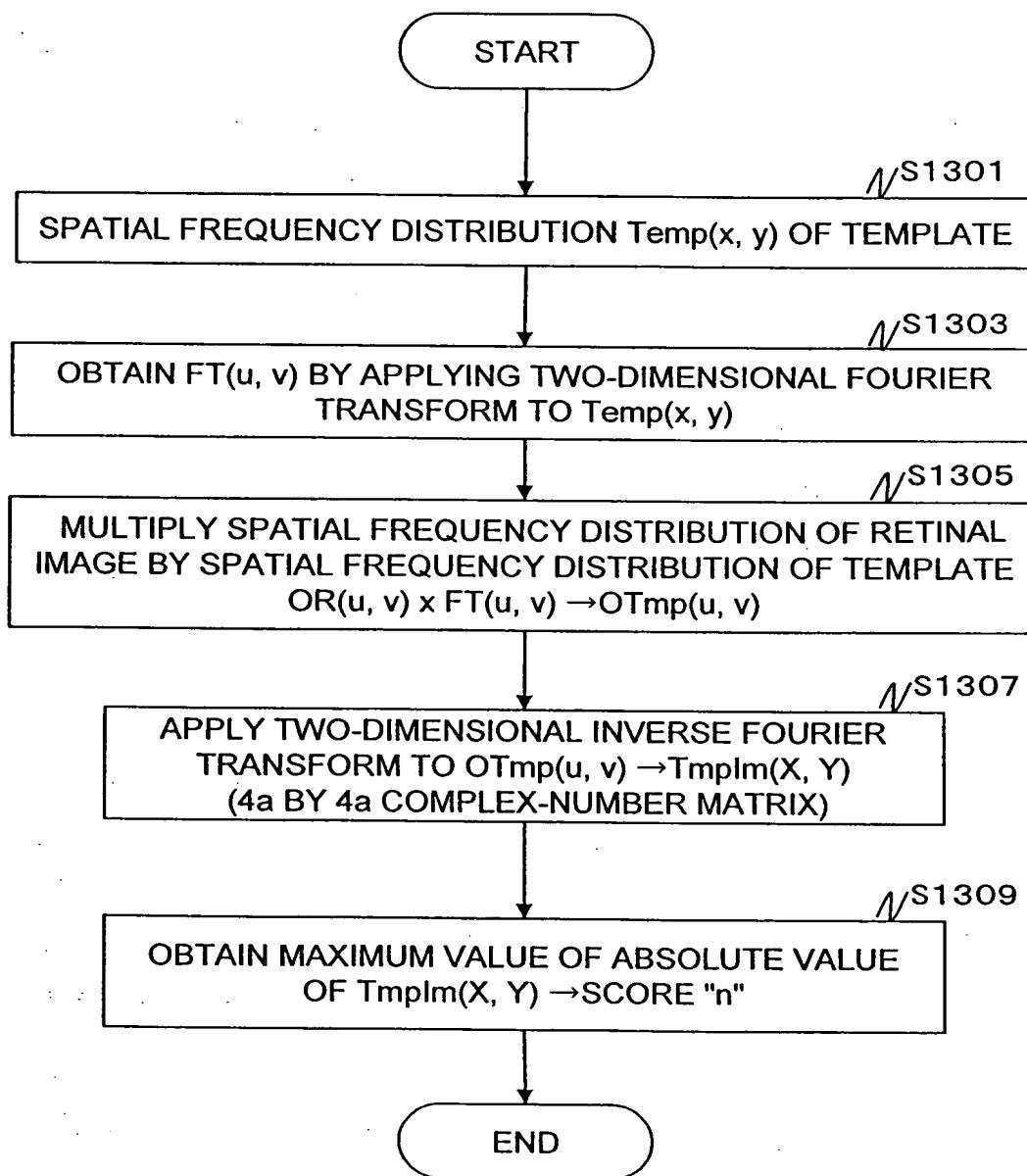


FIG. 10

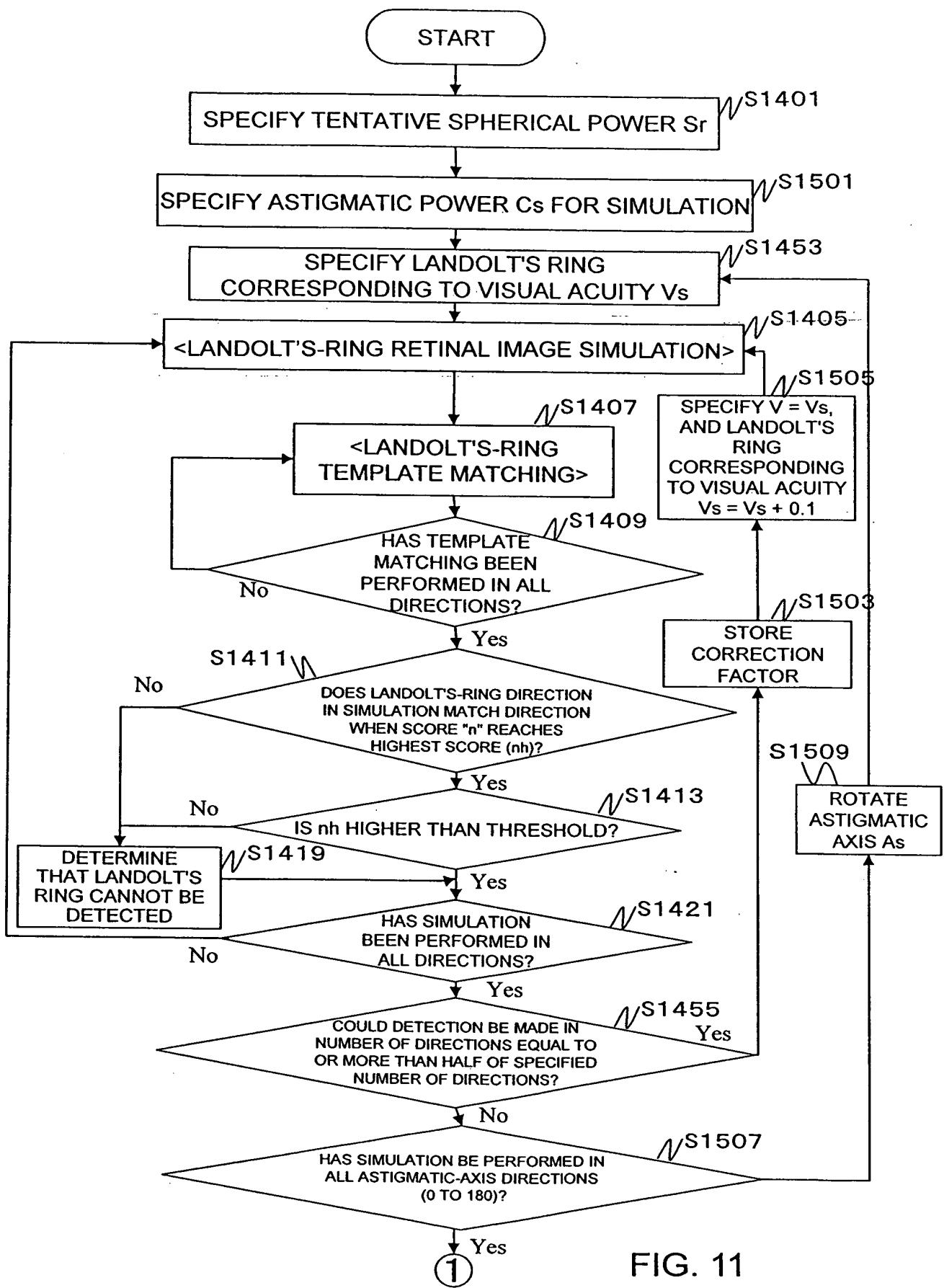


FIG. 11

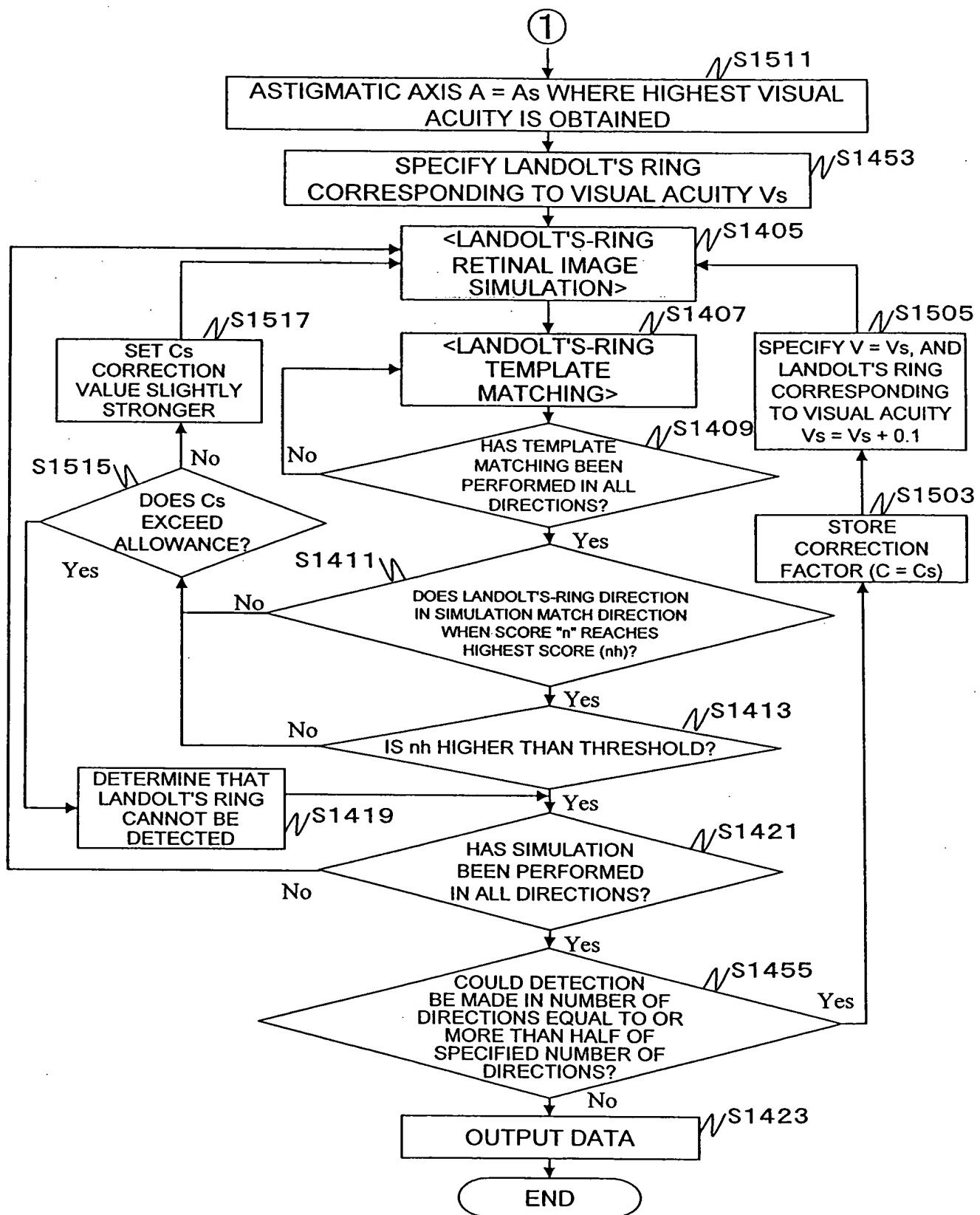


FIG. 12

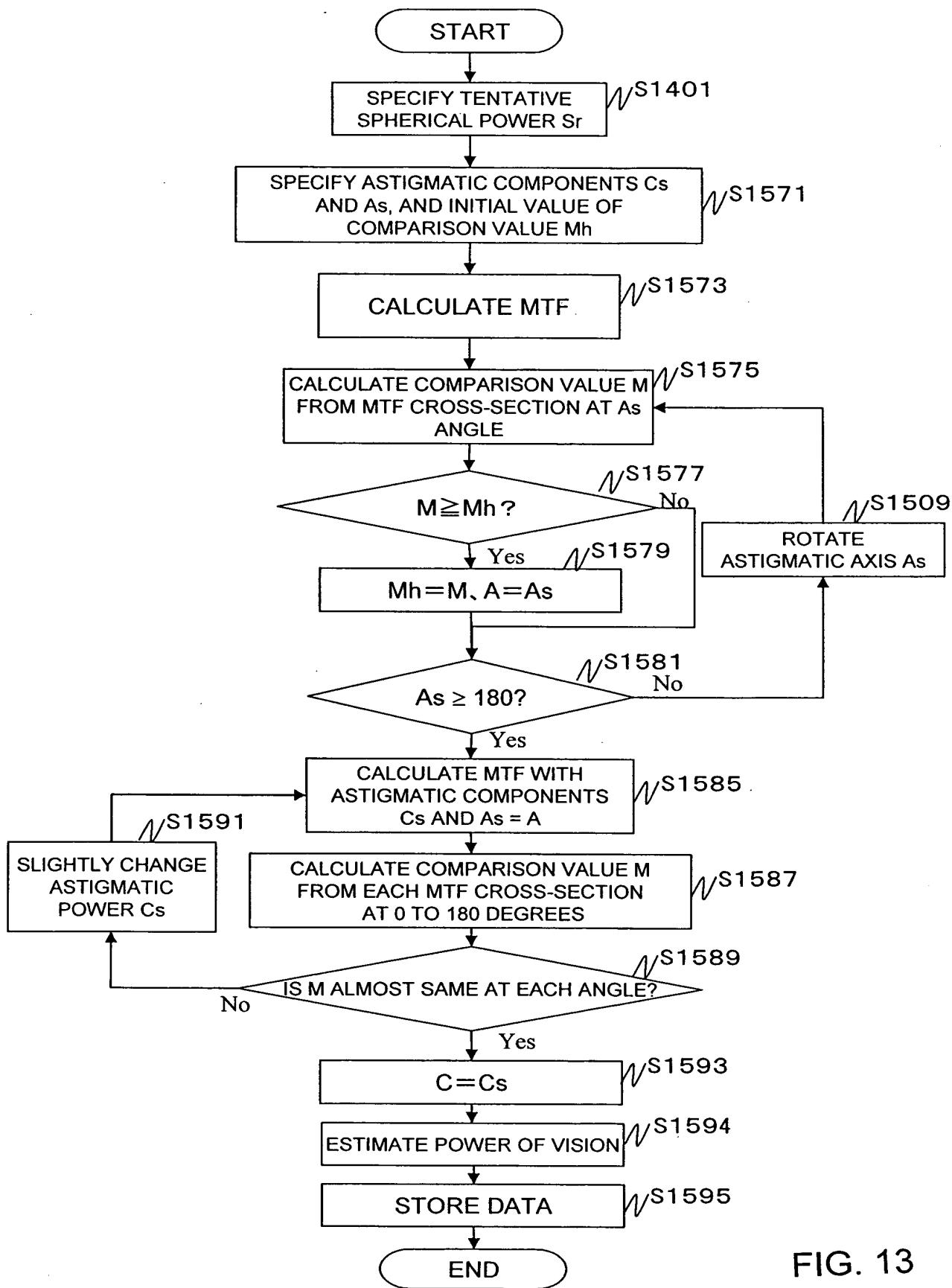


FIG. 13

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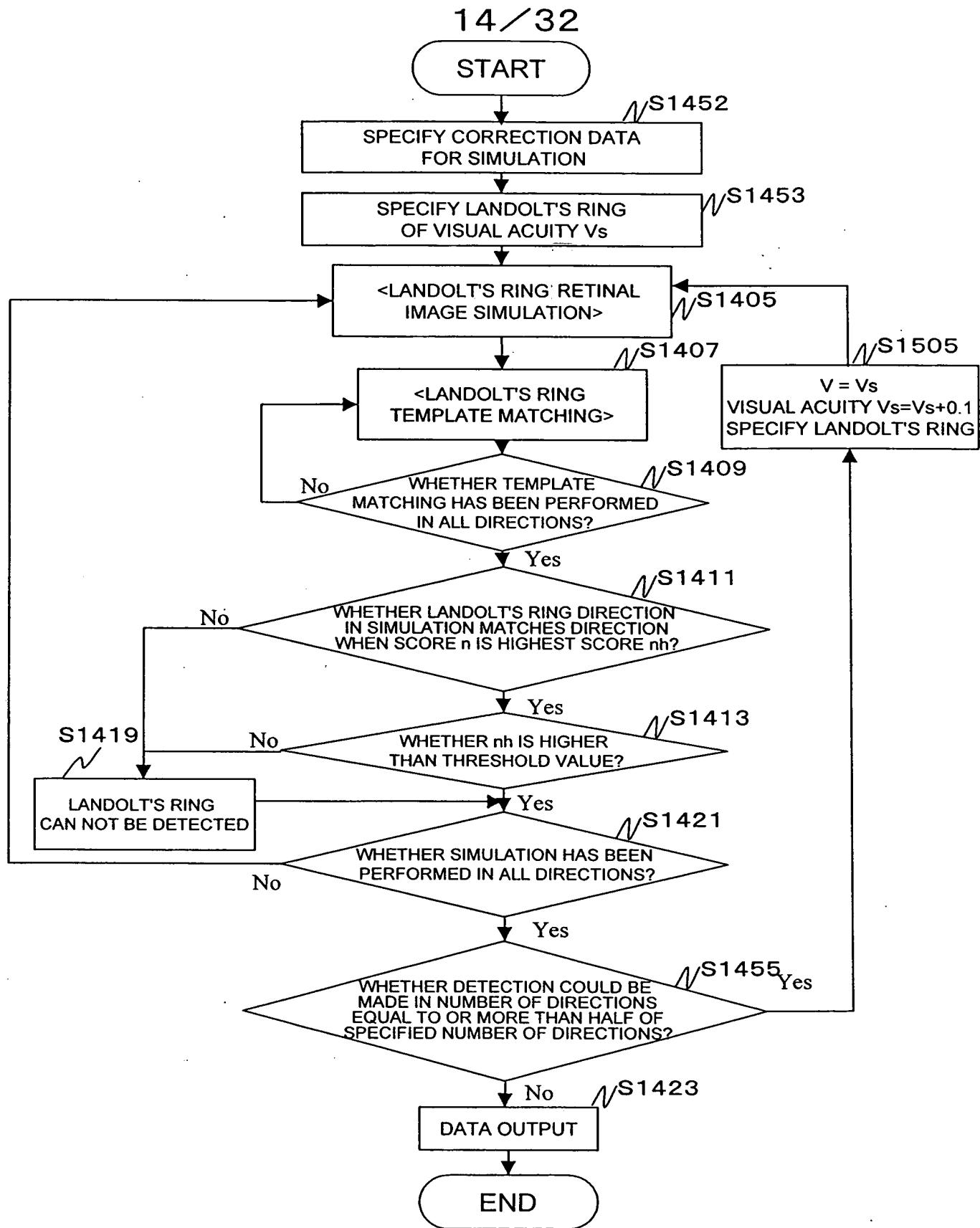


FIG.14

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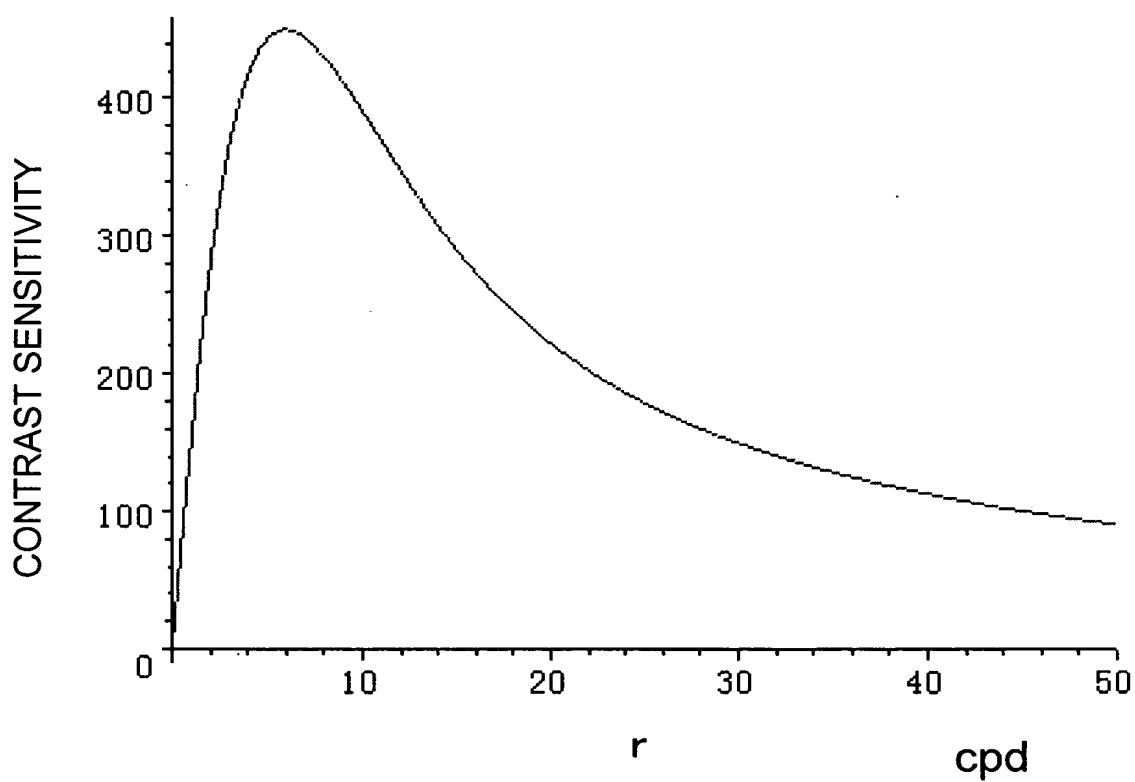
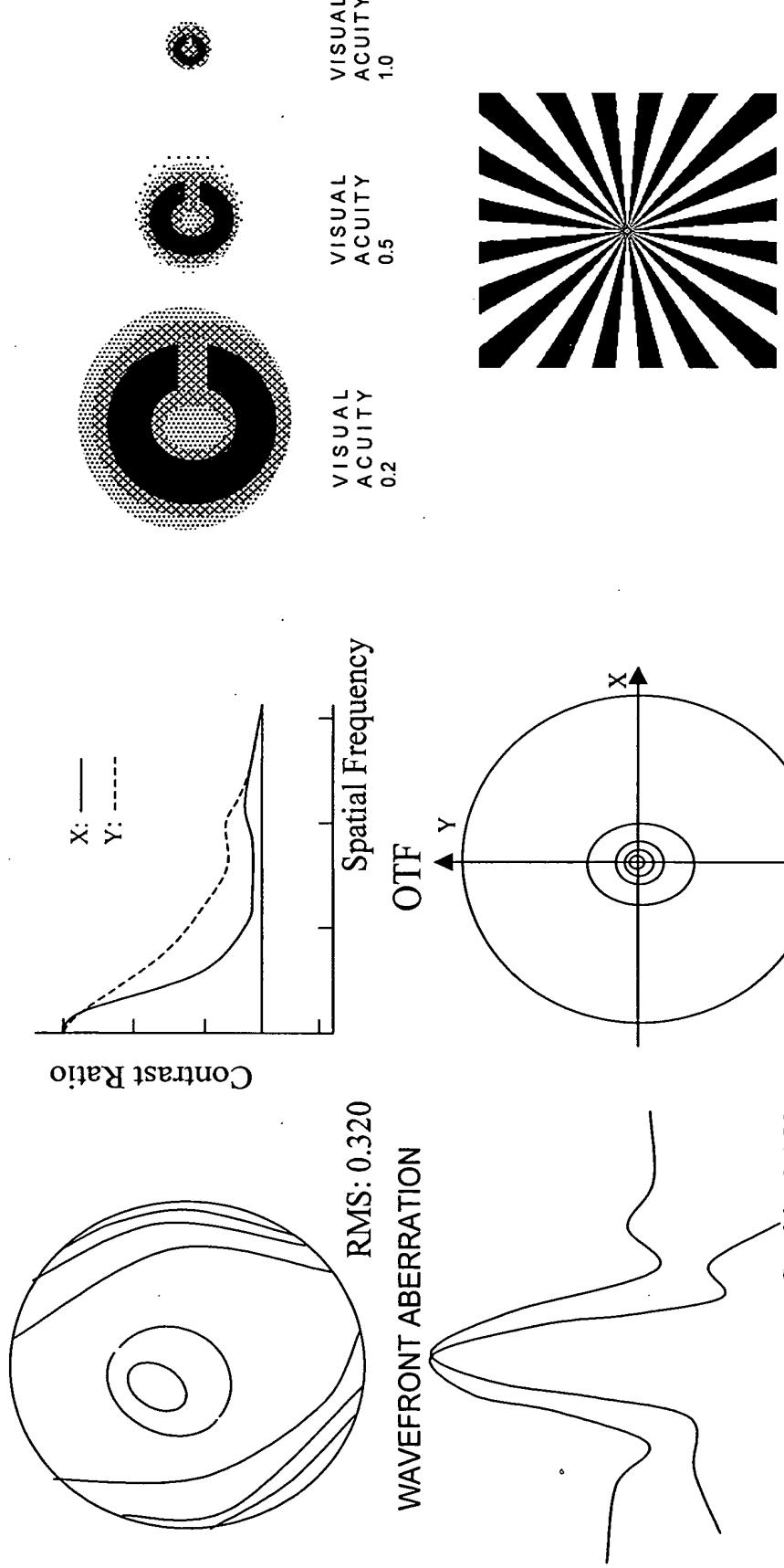


FIG.15

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VISIBILITY OF LANDOLT'S RING, INDEX

OTF(TWO DIMENSIONAL DISPLAY)

	S	C	Ax	CORRECTED VISUAL ACUITY
COMPENSATION CORRECTION DATA	-7.15	-0.35	5 DEGREES	1.5
MEASURED VALUE	(-7.00)	(-0.5)	(3 DEGREES)	(1.2)

BEST IMAGE DISPLAY - TEMPLATE MATCHING

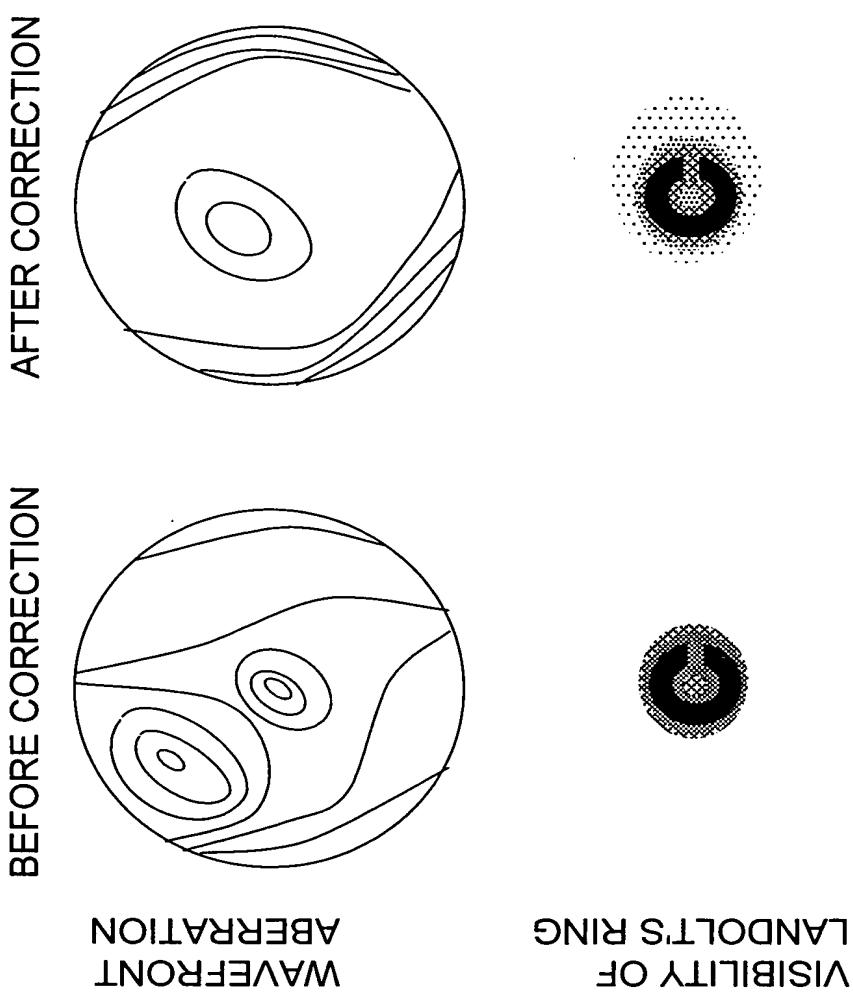
FIG.16

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Title: OPHTHALMIC DATA MEASURING
APPARATUS, OPHTHALMIC DATA
MEASUREMENT PROGRAM AND EYE
CHARACTERISTIC MEASURING APPARATUS
Inventor(s): Yoko HIROHARA et al.
DOCKET NO.: 059277-0129

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	BEFORE COMPENSATION	AFTER COMPENSATION
CORRECTED VISUAL ACUITY	1.2	1.5

PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

FIG. 17

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PRESCRIPTION DATA FOR EYEGLASSES/CONTACTS

PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.00	-7.15
C	-0.5	-0.35
A	3	5
CORRECTED VISUAL ACUITY	1.2	1.5

FIG.18

PREScription DATA FOR REFRACTIVE SURGERY

PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	MEASURED VALUE	COMPENSATION CORRECTION DATA	PREDICTED VALUE AFTER COMPENSATION CORRECTION
S	-7.00	-7.15	-0.15
C	0.5	0.35	0.15
A	3	5	4
HIGHER ORDER SPHERICAL ABERRATION	0.125		0.280
HIGHER ORDER ASTIGMATIC ABERRATION	0.105		0.125
HIGHER ORDER COMA ABERRATION	0.085		0.090
CORRECTED VISUAL ACUITY	1.2	2.0 (IDEAL VALUE)	1.5

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Title: OPHTHALMIC DATA MEASURING APPARATUS, OPHTHALMIC DATA MEASUREMENT PROGRAM AND EYE CHARACTERISTIC MEASURING APPARATUS
 Inventor(s): Yoko HIROHARA et al.
 DOCKET NO.: 059277-0129

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FIG. 19

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PRESCRIPTION DATA FOR EYEGLASSES/CONTACTS
(COMPARISON WHEN ENVIRONMENTAL CONDITION IS CHANGED)

ENVIRONMENTAL CONDITION: PUPIL DIAMETER	IN THE DAYTIME: 3.42mm		UNDER FLUORESCENT LAMP: 6.54mm		IN ROOM AND DAYTIME: 4.35 mm	
	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.00	-7.15	-7.33	-7.43	-7.18	-7.31
C	-0.5	-0.35	-0.40	-0.45	-0.45	-0.38
A	3	5	4	4	3	4
CORRECTED VISUAL ACUITY	1.2	1.5	1.0	1.2	1.2	1.2

VISIBILITY OF
LANDOLT'S RING
(0.5)

FIG.20

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PUPIL DATA
(COMPARISON WHEN ENVIRONMENTAL
CONDITION IS CHANGED)

ENVIRONMENTAL CONDITION: PUPIL DIAMETER	IN THE DAYTIME: 3.42 mm	UNDER FLUORESCENT LAMP: 6.54 mm	IN ROOM AND DAYTIME: 4.35 mm
SHIFT AMOUNT FROM LIMBUS CENTER (mm)	x	0.542	0.723
	y	0.109	0.120
CORRECTED VISUAL ACUITY	1.5	1.2	1.2

FIG.21

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Title: OPHTHALMIC DATA MEASURING
APPARATUS, OPHTHALMIC DATA
MEASUREMENT PROGRAM AND EYE
CHARACTERISTIC MEASURING APPARATUS
Inventor(s): Yoko HIROHARA et al.
DOCKET NO.: 059277-0129

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PRESCRIPTION DATA FOR EYEGLASSES/CONTACTS
(COMPARISON TO CONSTANT PUPIL DIAMETER)

ENVIRONMENTAL CONDITION: PUPIL DIAMETER	4mm	6mm	AT TIME OF MEASUREMENT (50%) 6.45 mm			
	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	CORRECTION DATA	CORRECTION DATA	CORRECTION DATA
S	-7.03	-7.18	-7.30	-7.45	-7.33	-7.43
C	-0.52	-0.41	-0.40	-0.43	-0.40	-0.45
A	3	5	4	5	4	4
CORRECTED VISUAL ACUITY	1.2	1.5	1.0	1.2	0.9	1.0

VISIBILITY OF
LANDOLT'S RING
(0.5)

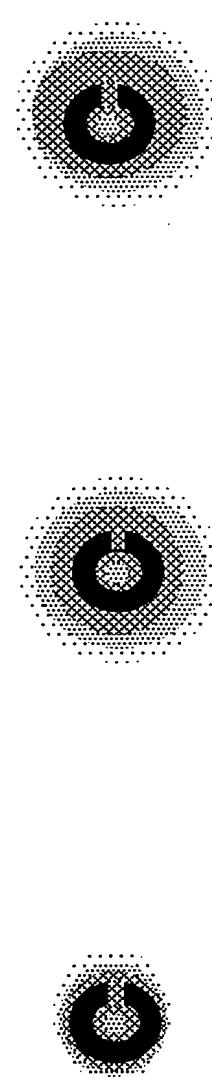


FIG.22

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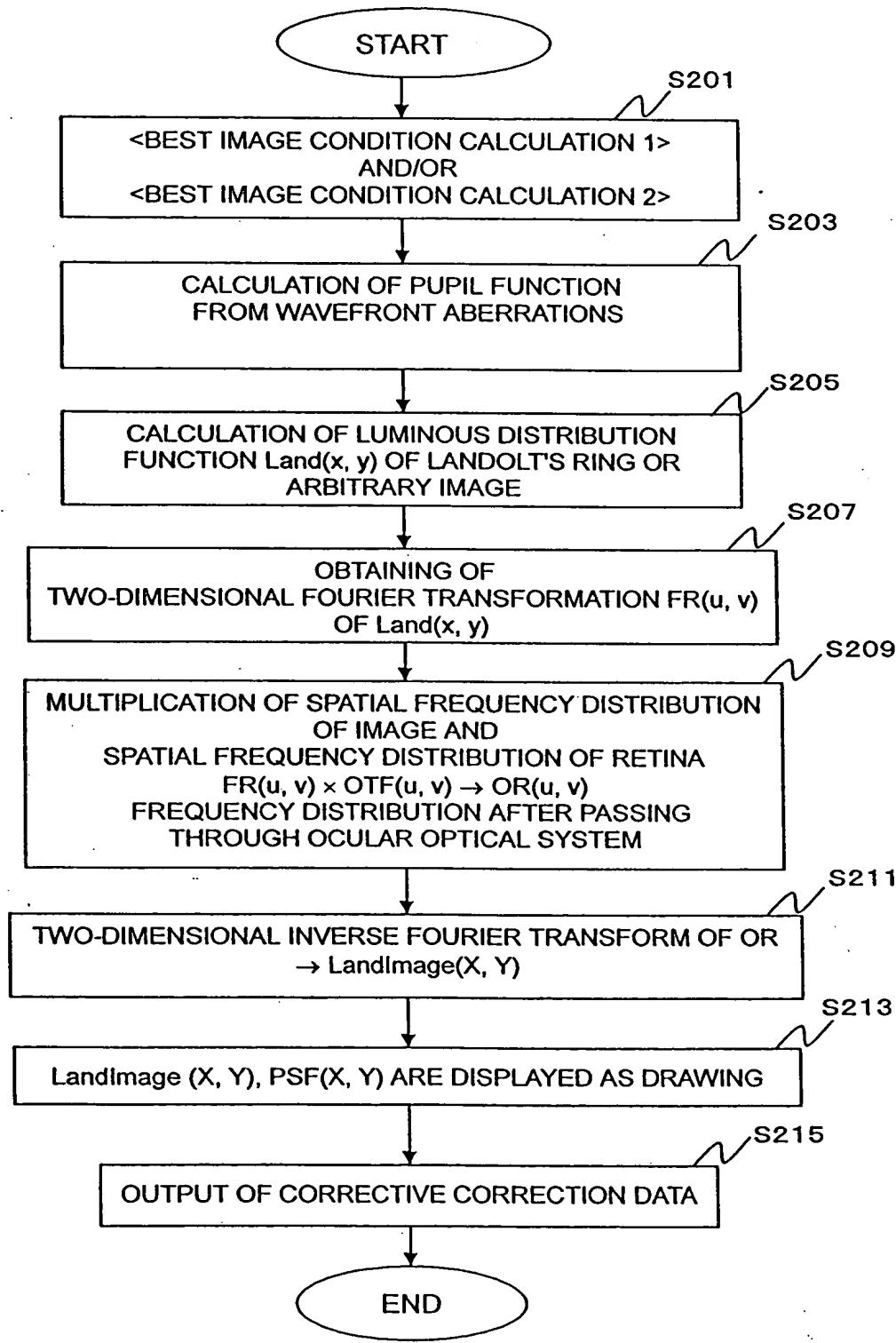


FIG.23

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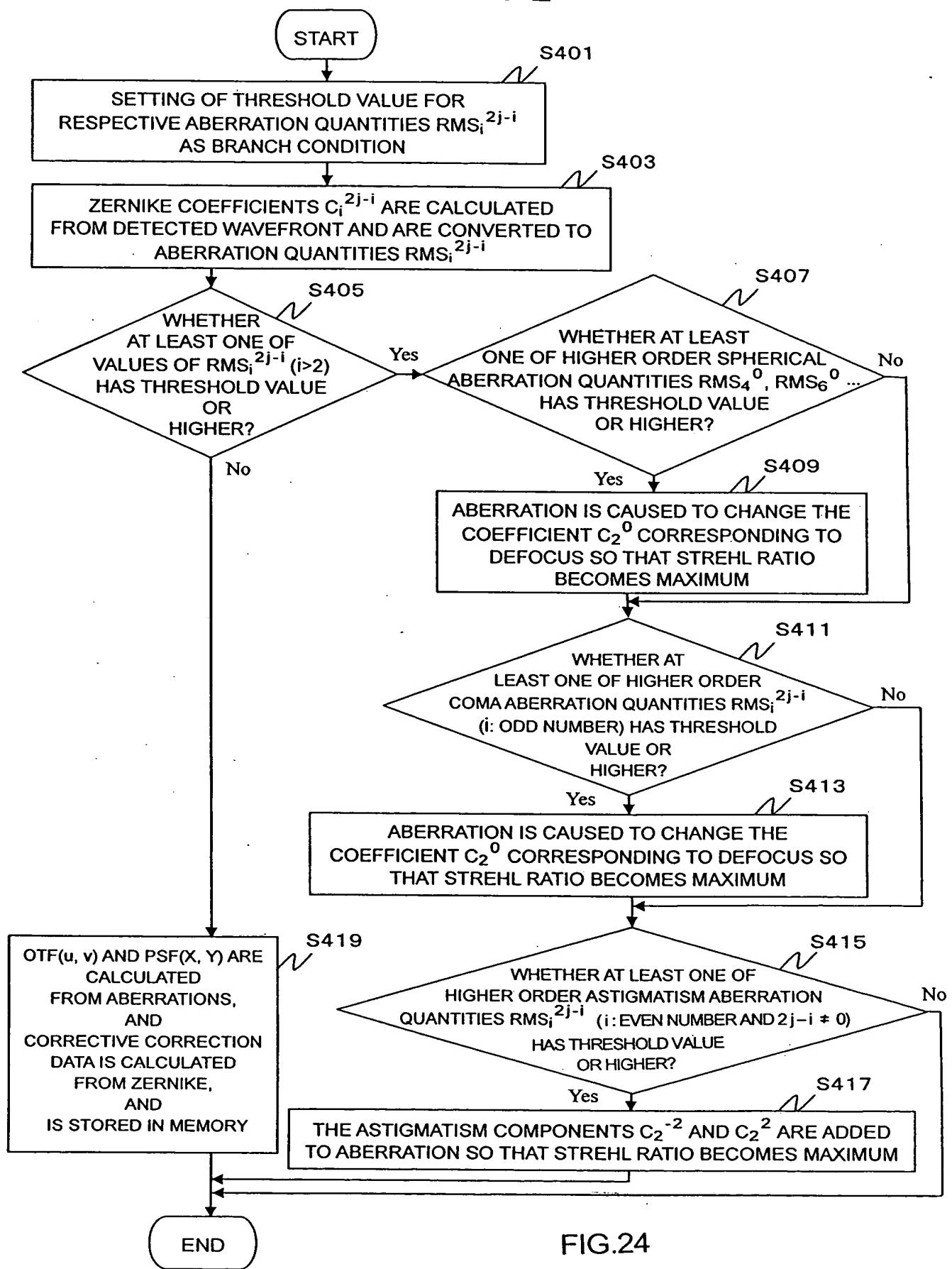


FIG.24

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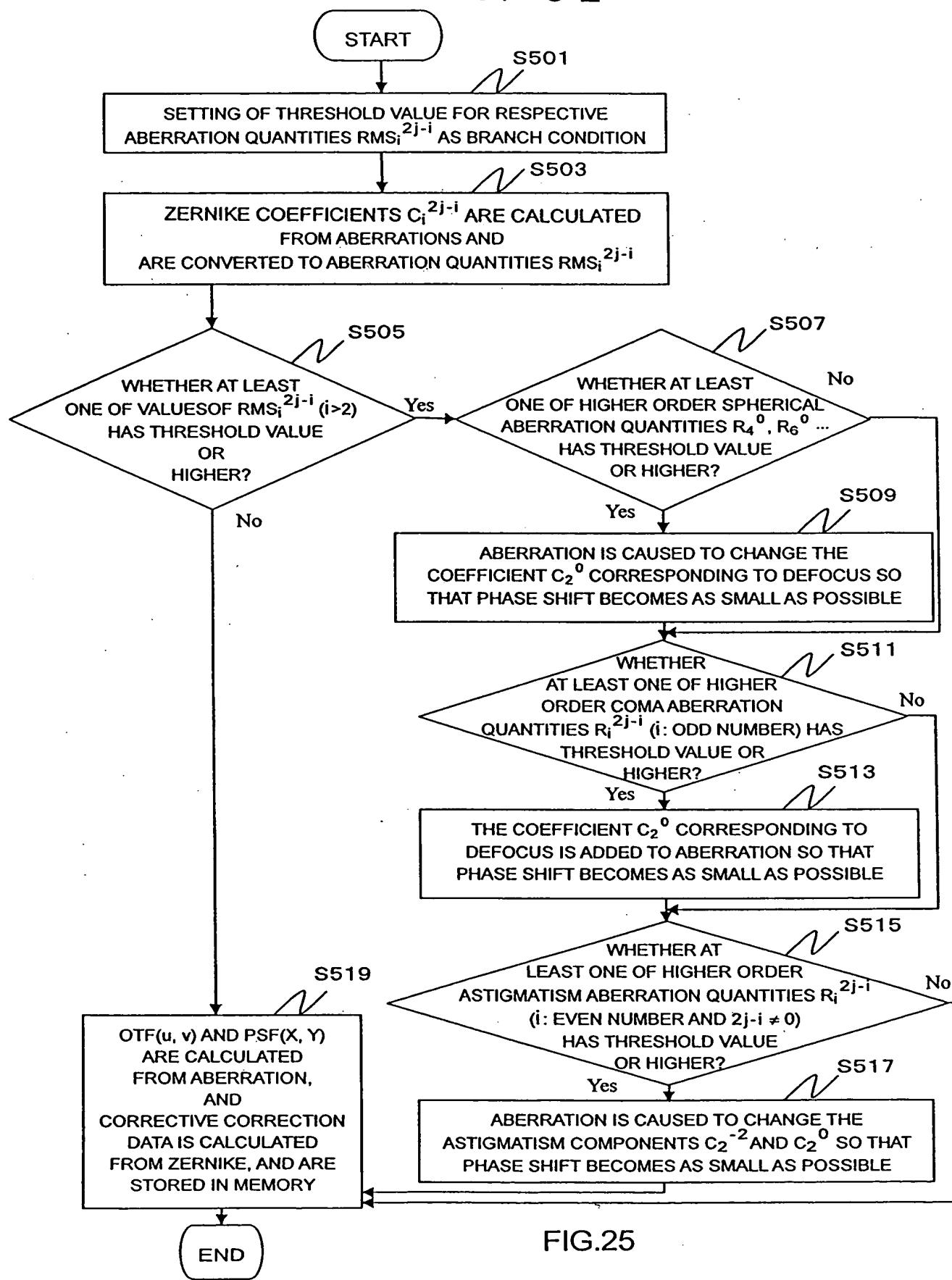
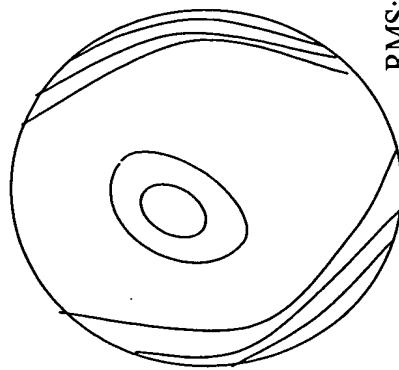


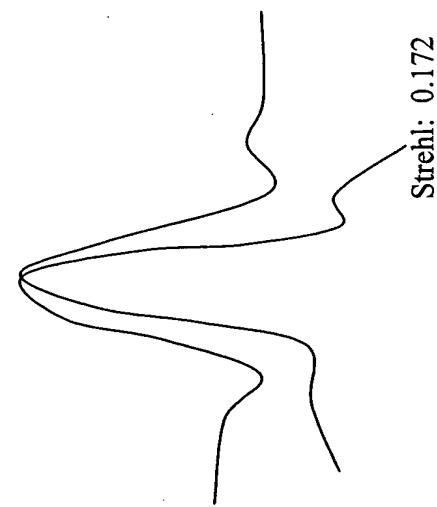
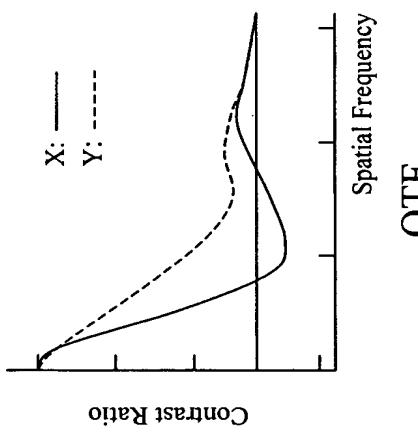
FIG.25

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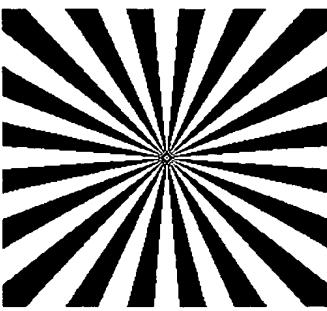
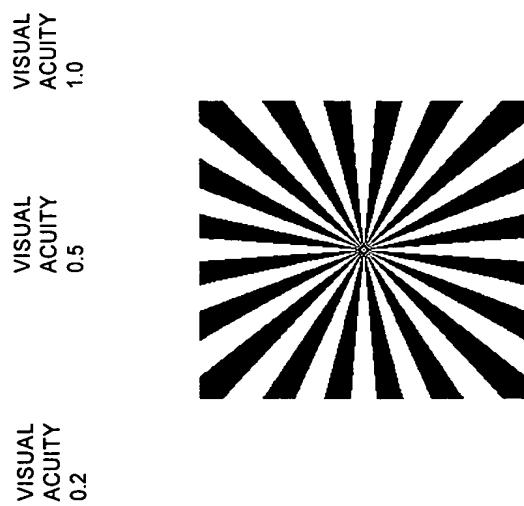
RMS: 0.348
WAVEFRONT ABERRATION



PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	S	C	A _X
COMPENSATION CORRECTION DATA	-7.15	-0.35	5 DEGREES
MEASURED VALUE	(-7.00)	(-0.5)	(3 DEGREES)

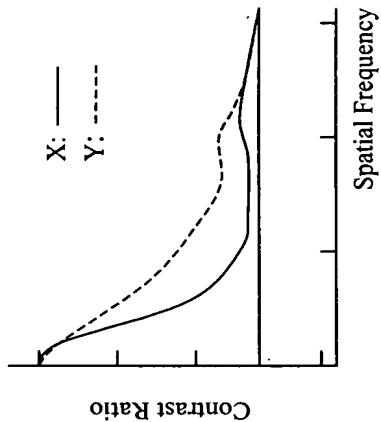
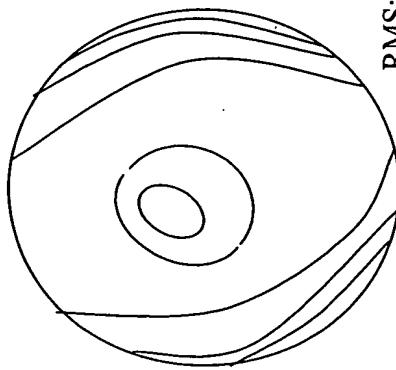
VISIBILITY OF
LANDOLT'S RING, INDEX



BEST IMAGE DISPLAY - Strehl OPTIMIZATION

FIG.26

MITSUOKO TOKYO AM 8:04 MARCH 2, 2000



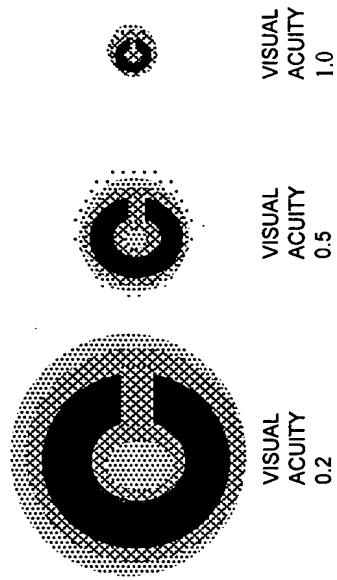
RMS: 0.320

CHARACTERISTIC MEASURING APPARATUS

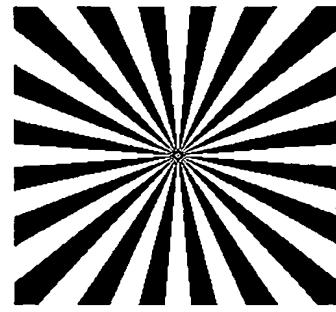
Title: OPHTHALMIC DATA MEASURING APPARATUS, OPHTHALMIC DATA MEASUREMENT PROGRAM AND EYE CHARACTERISTIC MEASURING APPARATUS
Inventor(s): Yoko HIROHARA et al.
DOCKET NO.: 059277-0129

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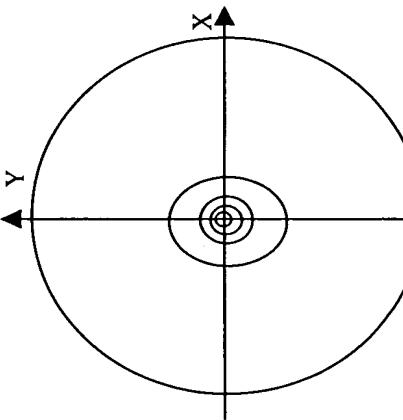
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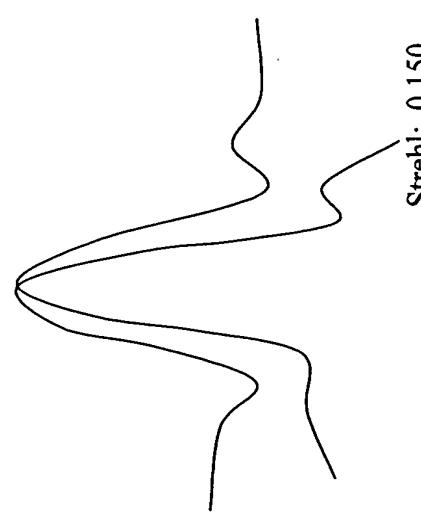
VISUAL ACUITY
1.0
0.5
0.2



VISIBILITY OF LANDOLT'S RING, INDEX



OTF(TWO DIMENSIONAL DISPLAY)



PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	S	C	Ax
COMPENSATION CORRECTION DATA	-7.21	-0.37	5 DEGREES
MEASURED VALUE	(-7.00)	(-0.5)	(3 DEGREES)

BEST IMAGE DISPLAY - PTF OPTIMIZATION

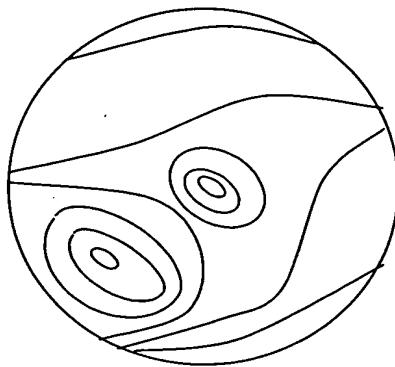
FIG.27

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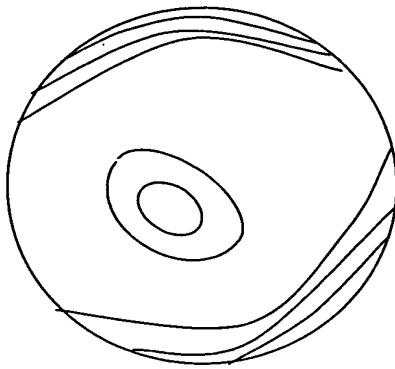
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BEFORE CORRECTION



AFTER CORRECTION



VISIBILITY OF LANDOLT'S RING

WAVEFRONT ABERARTION



PUPIL DIAMETER IN THE DAYTIME: 3.42mm

	BEFORE COMPENSATION	AFTER COMPENSATION
Strehl RATIO	0.088	0.122

FIG.28

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PRESCRIPTION DATA FOR EYEGLASSES/CONTACTS

PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.00	-7.15
C	-0.5	-0.35
A	3	5
Strehl RATIO	0.088	0.122

FIG.29

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PRESCRIPTION DATA FOR REFRACTIVE SURGERY

PUPIL DIAMETER IN THE DAYTIME: 3.42 mm

	MEASURED VALUE	COMPENSATION CORRECTION DATA	PREDICTED VALUE AFTER COMPENSATION CORRECTION
S	-7.00	-7.15	-0.15
C	0.5	0.35	0.15
A	3	5	4
HIGHER ORDER SPHERICAL ABERRATION	0.125		0.280
HIGHER ORDER ASTIGMATIC ABERRATION	0.105		0.125
HIGHER ORDER COMA ABERRATION	0.085		0.090
Strehl RATIO	0.088	0.252 (IDEAL VALUE)	0.198

FIG.30

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PREScription DATA FOR EYEGLASSES/CONTACTS
(COMPARISON WHEN ENVIRONMENTAL CONDITION IS CHANGED)

ENVIRONMENTAL CONDITION: PUPIL DIAMETER	IN THE DAYTIME: 3.42mm		UNDER FLUORESCENT LAMP: 6.54mm		IN ROOM AND DAYTIME: 4.35mm	
	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.00	-7.15	-7.33	-7.43	-7.18	-7.31
C	-0.5	-0.35	-0.40	-0.45	-0.45	-0.38
A	3	5	4	4	3	4
Strehl RATIO	0.088	0.122	0.056	0.076	0.078	0.095

VISIBILITY OF
LANDOLT'S RING
(0.5)

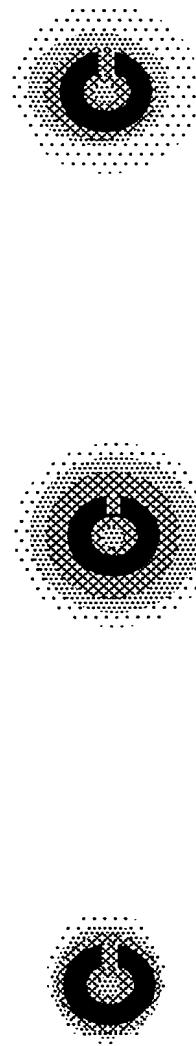


FIG.31

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**PREScription DATA FOR EYEGLASSES/CONTACTS
(COMPARISON TO CONSTANT PUPIL DIAMETER)**

ENVIRONMENTAL CONDITION: PUPIL DIAMETER	4mm		6mm		AT TIME OF MEASUREMENT (\$0 [x]: 6.45 mm)	
	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA	CORRECTION DATA	COMPENSATION CORRECTION DATA
S	-7.03	-7.18	-7.30	-7.45	-7.33	-7.43
C	-0.52	-0.41	-0.40	-0.43	-0.40	-0.45
A	3	5	4	5	4	4
Strehl RATIO	0.086	0.120	0.064	0.079	0.056	0.076

VISIBILITY OF
LANDOLT'S RING
(0.5)

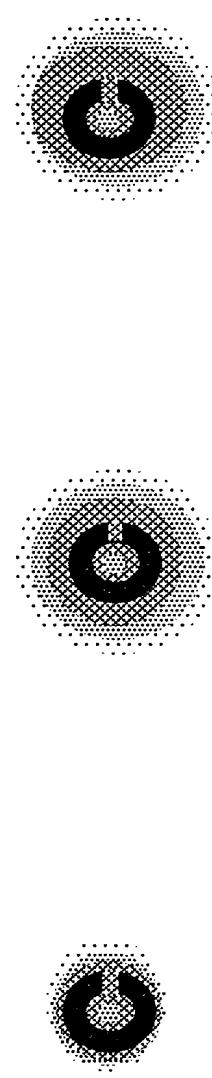


FIG.32